US006040586A

United States Patent [19]

Slettnes

[54] **METHOD AND SYSTEM FOR VELOCITY-NORMALIZED POSITION-BASED SCANNING**

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[56] **References Cited**

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[57] **ABSTRACT**

A data collection method for scanning a scan window comprising one or more channels is described. In the method of the invention an integrated signal (S) is measured across a scan window including one or more channels using an integrating detector. Next, a velocity-normalized integrated signal (Sn) is determined based on the integrated signal (S) and a scan velocity.

25 Claims, 8 Drawing Sheets

Define channel width (w) in terms of a start point and end point

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Locate integrating detector at start point of channel

↓

Clear integrating detector

↓

Record start time, ts

↓

Scan the integrating detector across the channel from the start point to the end point

↓

Record an end time, tc

↓

Compute an integration time, ti = tc - ts

↓

Record an integrated signal

↓

Compute a velocity-normalized integrated signal

↓

Repeat for each channel in a scan window